

Assessing Riparian Health and Land Use on the New River of Ashe County, NC

**Appalachian State University
Dr. Sherry Everts
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January 1, 2017 – June 30, 2018

May 31, 2018

**Dr. William Schumann
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Appalachian State University
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FINAL REPORT NARRATIVE

Title of Project: Assessing Riparian Health and Land Use on the New River of Ashe County, NC

Grant Period: January 1, 2017-June 30, 2018

Grantee Name: Appalachian State University

Project Director: Dr. William Schumann

DESCRIPTION OF PROJECT

Provide a brief overview of the project.

Appalachian State University's 2017 ATP project will focus on ARC Goal 4, Natural and Cultural Assets: Strengthen Appalachia's community and economic development potential by leveraging the Region's natural and cultural heritage assets. Specifically, this project will build the capacity of two community partners to prioritize conservation and recreation development efforts and efficiently utilize limited resources to sustain the rural economy and environment of Ashe County, NC. Currently, staff at the NRC and NRSP have limited or incomplete data about: the number and state of undeveloped lots along the river; the state of riparian health, including riverbanks; and preferences about additional conservation and recreational development projects among public users of river resources. A student team at Appalachian State University will collect data related to each topic during the fall 2017 semester in coordination with staff at the NRC and NRSP. Research will include three interrelated sub-projects. First, students will use ARC GIS data available through Appalachian State's Department of Geography and Planning to determine land ownership patterns along the New River in Ashe County. Second, students will canoe approximately 10 miles of the New River with GPS and camera equipment to create a geo-locatable database of riparian health conditions on riverbanks. Third, students will survey the general public at high-traffic recreational areas in the NRSP to assess public interest in conservation and development work. Data collection will enable the project partners to prioritize projects based on the size of land holdings (including the extent of river frontage on lots), the restorative needs of specific sections of river, and the potential for public support of specific projects. In turn, data collected will enable proposal writing, information exchange (e.g. county or state offices, non-profit organizations), landowner and public education about riparian conditions, and planning for present and future service demands on government agencies. Presentations will disseminate the findings to project partners, the general public, and academic audiences.

PROJECT ACTIVITIES

Goal 1 Identify the numbers and types of land parcels along the New River

Objective 1.1 Use ARC GIS software to examine digital tax parcels to collect data about the number of landowners, the size of parcels, the extent of development on parcels (i.e. forested, cleared, developed), public and private landownership patterns, and the number of subdivisions within parcels.

Objective 1.2 Create a report of land use patterns, including maps, tables, and data sets, to facilitate prioritization of NRC and NRSP conservation and recreational tourism projects

Goal 2 Assess riparian health of the New River in Ashe County, NC

Objective 2.1 Canoe with New River equipped with GPS and camera equipment to conduct a riparian health assessment of the New River with regard to the height and slope of river banks, vegetation patterns, and the extent of development.

Objective 2.2. Create a database of riparian conditions to facilitate prioritization of NRC and NRSP conservation and recreational tourism projects

Goal 3 Determine local public interests in conservation and recreational tourism projects among uses of river resources

Objective 3.1 Create a survey instrument and survey users about projects in high-traffic areas of the New River, e.g. NRSP fishing docks

Objective 3.2 Create a database of public interests, including (as applicable) tables and maps, to facilitate prioritization of NRC and NRSP conservation and recreational tourism projects

Goal 4 Disseminate research findings for community, scholarly, and general public audiences

Objective 4.1 Create power point and poster assets to share research findings with various audiences

Objective 4.2 Present research results at project mid-point to NRC and NRSP staff; present final research results at project conclusion to NRC/NRSP staff and the general public in Ashe County

Objective 4.3 Present research results at ATP meetings in Washington, D.C.

Objective 4.4 Present research results at ASA meetings

PROJECT OUTCOMES

Goal 1 Identify the numbers and types of land parcels along the New River

Objective 1.1 Data indicated high levels of absentee land ownership among assessed properties along the New River in Ashe County.

Objective 1.2 Tables and images created (see link to project artifacts below).

Goal 2 Assess riparian health of the New River in Ashe County, NC

Objective 2.1 Two trips totaling 10 miles of river were assessed for riparian riverbank health, which was preceded by assessment training. Most banks were in relatively good condition, though some factors rated lower (e.g. diversity of vegetation) or higher (e.g. barriers to fish movement) than others.

Objective 2.2. Excel spreadsheet shared with project partners.

Goal 3 Determine local public interests in conservation and recreational tourism projects among uses of river resources

Objective 3.1 Surveyed 94 persons with support from New River State Park staff.

Approximately 2/3 of respondents were not residents of Ashe County. However, there were few distinctions between responses from these groups. Surveys indicated broad support for conservation and recreational development.

Objective 3.2 Survey responses coded into an Excel spreadsheet, shared with project partners.

Goal 4 Disseminate research findings for community, scholarly, and general public audiences

Objective 4.1 Power point and poster assets created

Objective 4.2 A meeting at the midpoint of research with the NRC and NRSP staff supported the development of a community presentation format and the dissemination of the public opinion survey. Two community-based presentations were delivered: in November 2017 in West Jefferson, NC in conjunction with NRC support; and in May 2018 at the Blowing Rock Art and History Museum, which provided an outreach opportunity for the NRC at the headwaters area of the South Fork of the New River. Approximately 40 people attended the combined meetings.

Objective 4.3 Research results presented at ATP meetings in Washington, D.C.

Objective 4.4 Research results were not presented at the ASA meetings.

PROBLEMS ENCOUNTERED

Describe any problems or challenges that were encountered, explaining any deviation from the original proposal.

There were no significant problems or deviations from the original proposal. However:

- Survey collection was difficult (i.e. sample size) during the fall, which occurred after the tourism season at the state park. Collaboration with park staff roughly doubled the sample size.
- Researchers recognized the need for better survey design regarding "economic development" questions; the range of interpretations suggested the need to define this term for survey users.
- Researchers elected to not present at the ASA meetings due to time constraints; the second community meeting (in May) was a more appropriate focus for the project.

PROGRAM CONTINUATION AND SUSTAINABILITY

Discuss the prospects for continuation and sustainability of (1) this project in the community and (2) the ATP at your institution.

1. Project partners now have data that they can utilize for purposes outlined in the project and for other goals, e.g. grant-writing. In particular, the riparian health assessment contributed needed labor to a larger project so that the NRC can build on a final data set to promote conservation measures in Ashe County.
2. Appalachian State University will continue to apply for ATP grants; a proposal for the 2018 cycle has been submitted. This project is supported by the

administration of the College of Arts and Sciences, of which the Center for Appalachian Studies is a part.

CONCLUSIONS AND RECOMMENDATIONS

Discuss the impact of the project on capacity building through such outcomes as development of student leadership, active partnerships, and community sustainability. Be sure to address the question, "What changes did you hope would occur in the community as a result of the project?"

Student leadership: students learned leadership through independent data collection, team-oriented project planning and implementation, training in riparian health assessment, and presentations.

Active partnerships: both the NRC and NRSP have expressed interest in exploring future internship possibilities. One student from the ATP is currently volunteering to continue riparian data collection through summer 2018.

Community sustainability: the presentations were very good in particular for bringing stakeholders into contact. At least one person from each of the community presentations attended without direct knowledge of the project partners or their conservation and recreational development goals.

The intention (or "hope") of research was to create resources that can eventually be redesigned as public education assets, which could facilitate community-based discussions about and participation in land use and economic change decisions in Ashe County. Data collection and reporting has (a) strengthened the capacity of the NRC to promote conservation and recreational development goals, and (b) introduced new stakeholders to the NCR and NRSP through two public presentations.

ATTACHMENTS

- Digital copy of the poster presentation
- Photographs showing students in action
- Flyers, text for PSA announcements, etc.
- Correspondence with community partners
- Publicity via websites and Facebook



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11:00 am - 12:00 pm

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The Appalachian Teaching Project's New River Survey: Assessing Riparian Health and Land Use on the New River of Ashe County, NC

Tours

For Teachers

Presenters Dr. William Schumann and Kelsey Wagner from Appalachian State University will deliver a public lecture about a New River study project conducted through the Appalachian Regional Commission's Appalachian

Facility Rental

Permanent Collection

Teaching Project (AIP). AIP students partnered with the New River Conservancy and the New River State Park (NRSP) to prioritize projects by

providing deeper knowledge in three areas: understanding the extent of land subdivision along the New River, assessing the need for restorative work along riverbanks, and determining public interest in recreational tourism development. Students surveyed the number and state of undeveloped lots along the river. They canoed along approximately 10 miles of the New River with GPS and cameras to create a geo-locatable database of riparian health conditions along the riverbank, and surveyed the general public at high-traffic recreational areas in the NRSP to assess public interest in conservation and development. This data provided useful information to assist the community partners in project planning and prioritization. Schumann and Wagner will review the research process, including community-based networking strategies, and present the results of the study.



See & Do About the Speakers

Join & Support

Dr. William Schumann is director of the Center for Appalachian Studies at Appalachian State University. He has authored or edited four books, including *Engaging Appalachia: Building Community Capacity for Sustainability*, which is forthcoming from the University Press of Kentucky.

Kelsey Wagner is an MA student in Appalachian Studies with extensive experience in community-based arts programming and conservation outreach.

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New River Conservancy

*Protecting the waters, woodlands and wildlife
of the New River Watershed*

CONTACT INFO

✉ info@blowingrockmuseum.org

☎ (828) 295-9099

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Hours:

Sunday 12 to 4 pm (May-October)
Closed Monday
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William Schumann <schumannwr@appstate.edu>

6/1 meeting

1 message

William Schumann <schumannwr@appstate.edu>
To: George Santucci <george@newriverconservancy.org>
Cc: "Hansell, Tom" <hansellts@appstate.edu>

Thu, May 25, 2017 at 9:25 AM

Good morning, George.

I am looking forward to our meeting on 6/1. I am writing up a grant to support our travel to Ashe County, as well as starting to develop a course syllabus. We have also purchased two 360-degree cameras with GPS for the project, which Tom will be testing out for us this summer. Here are the items from my notes that we were planning to discuss next week:

1. Scheduling events, travel for research, and presentations.
2. Discussing the methodology for students to review maps indicating the state of land subdivision along the NR. (Geography data)
3. Discussing the methodology for students to examine riparian health via canoe on the NR.

Please let me know if there are other items I can prepare for. One last important thing: I don't have a meeting time in my calendar. :) How is 10 or 10:30 for you?

Very best,

Billy

Dr. William Schumann
Director for the Center of Appalachian Studies
Associate Professor of Appalachian Studies

Appalachian State University
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PO Box 32018 Living Learning Center
Boone, NC 28608-2018

www.appstudies.appstate.edu



William Schumann <schumannwr@appstate.edu>

Re: Tuesday Presentation

1 message

William Schumann <schumannwr@appstate.edu>
To: chelsea@newriverconservancy.org

Thu, Oct 5, 2017 at 12:10 PM

Chelsea,

We are happy to travel to the 221 access point. We can get there by 6 p.m. and will be able to stay for about an hour to keep it within the class meeting times. Does that work for you?

Thanks,

Billy

On Oct 3, 2017 2:18 PM, "William Schumann" <schumannwr@appstate.edu> wrote:

Chelsea,

Let me check in tonight during class about our travel time availability. The 221 access is a fair drive from Boone! However, it is great that the park is interested in meeting us.

Thanks,

Billy

On Oct 3, 2017 12:26 PM, <chelsea@newriverconservancy.org> wrote:

Hey Billy!!

Talked with the staff this morning about your presentation next week. We are all pretty excited about it! George said he is going to speak to Joe Shimel tomorrow about possibly having you all present in the meeting room at the New River State Park 221 Access in the visitors center. There's more room and the rangers would love to be able to attend.

What time would you guys like to begin?

Chelsea Blount, River Builder Coordinator

New River Conservancy**PO Box 1480****West Jefferson, NC 28694**

(336) 846-6267 Office

(919) 482-9236 Cell

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William Schumann <schumannwr@appstate.edu>

RE: New River State Park Planning Grant

1 message

chelsea@newriverconservancy.org <chelsea@newriverconservancy.org>
To: William Schumann <schumannwr@appstate.edu>

Thu, Nov 16, 2017 at 3:28 PM

Thank you!! That's perfect.

Chelsea Blount, River Builder Coordinator

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----- Original Message -----

Subject: Re: New River State Park Planning Grant

From: William Schumann <schumannwr@appstate.edu>

Date: Thu, November 16, 2017 2:15 pm

To: chelsea@newriverconservancy.org

During the fall 2017 semester, 9 students made 7 trips each to Ashe County on behalf of working for this project. We looked at land use patterns using GIS data, surveyed riparian Health by canoeing 10 miles of river, and ran a public opinion survey 2 gauge public interest in conservation and Recreation development work in the county. Coupled with the time I spent, there was a total of 220 hours volunteered on this project.

On Nov 16, 2017 11:45 AM, <chelsea@newriverconservancy.org> wrote:

Hello guys,

I am working on submitting some documents that are required before we can apply for reimbursement from Clean Water Management Trust Fund for the planning grant the ASU students have been working on.

One of the documents required is proof of the match. Match for this grant is mostly volunteer time, supplies from the park, and expertise. So if you both wouldn't mind, could you just reply to this email with some text about how your groups are helping us on this grant?

So **Billy**, just a quick paragraph explaining what your class is doing for us - mentioning the river assessments and GIS work.

And **Joe**, would you mind shooting me a paragraph about how the park has participated and loaned us equipment like boats, PFDS, paddles, and shuttles?

Nothing fancy!! Just need proof from our partners that we've got help on this project.

Thank you!!

Chelsea Blount, River Builder Coordinator

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William Schumann <schumannwr@appstate.edu>

Re: New River presentation

1 message

George Santucci <george@newriverconservancy.org>

Tue, Apr 10, 2018 at 10:18 PM

To: Willard Watson III <brahmprograms@gmail.com>

Cc: William Schumann <schumannwr@appstate.edu>, George Santucci <george@newriverconservancy.org>, Chelsea Blount <chelsea@newriverconservancy.org>, Kelsey Wagner <wagnerkm1@appstate.edu>, Linda Slade <linda@newriverconservancy.org>

Thanks all,

I think Linda and I can be there. Chelsea will be out west that week at National River Rally.

George

George Santucci**New River Conservancy****866/481-6267 (office)****336/466-4402 (cell)****New River Conservancy**

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On Tue, Apr 10, 2018 at 3:01 PM, Willard Watson III <brahmprograms@gmail.com> wrote:

Hello all,

My name is Willard Watson, I am the director of programs and outreach at the BRAHM. I hope y'all can attend the talk on May 3rd. We have a variety of programs, concerts, and exhibitions that are sure to be a hit with all crowds! We would also be happy to host an event promoting the work y'all do.

Thanks,

Willard

Willard Watson III
Programs and Outreach Director
Blowing Rock Art & History Museum
[159 Chestnut St](#)
PO BOX 828
Blowing Rock, NC 28605
Phone (828) 295-9099
brahmprograms@gmail.com

On Tue, Apr 10, 2018 at 2:58 PM, William Schumann <schumannwr@appstate.edu> wrote:

Dear NRC Friends,

Kelsey and I are presenting on the river project at BRAHM on 5/3 at 11am. Hope you can join us. I am copying Willard Watson from BRAHM who can follow up on details and is also a great resource if considering future events in the South Fork headwaters area.

Best,

Billy

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Neighboring the New: Assessing the River for its Future

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NOV 14 Neighboring the New: Assessing the River for its Future

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Tuesday, November 14, 2017 at 5:30 PM - 7 PM about 6 months ago

Boondocks Beer 302 S Jefferson Ave, West Jefferson, North Carolina 28694 Show Map

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Details

You're invited for light fare and drinks Tuesday, November 14, between 5:30-7 pm 6:00 pm Special Presentation: Neighboring the New: Assessing the River for its Future Presented by ASU Masters in Appalachian Studies Candidates Boondocks Brew Haus, 302 S. Jefferson, West Jefferson, NC Hosted by New River Conservancy

RSVP by 11/10/17 phone: 866-481-6267 or linda@newriverconservancy.org

Causes Kid Friendly

About New River Conservancy

New River Conservancy River · West Jefferson, North Carolina Formerly known as National Committee for the New River, we're evolving and changing as we embrace the next generation of protection for the New River.

Events with New River Conservancy

- JUN 2 Land Trust Day at Mast Store Boone Sat 9:30 AM Interested
- JUN 4 Bluemovement Road Trip - Fayetteville, WV Cleanup Mon 5 PM · Ansted, West Virginia Interested
- JUN 8 New River Clean-up (Fries Section) Fri 10 AM · Galax, Virginia Interested

Suggested Events

- 2018 Boone Block Party Sunday at Howard St, 4 friends are going Interested · Going
- Home Energy Block Sat Jun 16 at Backstr by Appalachian Voice Interested · Going
- The Wood Brothers Sat Jun 16 at Beech M 2 friends are going Interested · Going
- Brushes & Brews Mon Jun 11 at Appala 284 guests Interested · Going
- CornBread is playing Fri Jun 22 at Appalac 18 guests Interested · Going
- Seedtime on the Cur Thursday at Appalsho 3 friends are going Interested · Going

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Details

Presenters Dr. William Schumann and Kelsey Wagner from Appalachian State University will deliver a public lecture about a New River study project conducted through the Appalachian Regional Commission's Appalachian Teaching Project (ATP). ATP students partnered with the New River Conservancy and the New River State Park (NRSP) to prioritize projects by providing deeper knowledge in three areas: understanding the extent of land subdivision along the New River, assessing the need for restorative work along riverbanks, and determining public interest in recreational tourism development. Students surveyed the number and state of undeveloped lots along the river. They canoed along approximately 10 miles of the New River with GPS and cameras to create a geo-locatable database of riparian health conditions along the riverbanks, and surveyed the general public at high-traffic recreational areas in the NRSP to assess public interest in conservation and development. This data provided useful information to assist the community partners in project planning and prioritization.

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-  **Summer Concert Series**
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JUN 7 Scholars & Scones: The Irish Fiddle in Western North Carolina
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JUN 12 Stop Motion Animation Workshop
Tue 10 AM · 12 people are going

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